

THE LEISURE HOUR.

A FAMILY JOURNAL OF INSTRUCTION AND RECREATION.

"BEHOLD IN THESE WHAT LEISURE HOURS DEMAND,—AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND."—Cowper.



RICHARD HAMILTON A PRISONER.

THE BEACON LIGHT.

A TALE OF THE COVENANTERS.

CHAPTER VIII.

THEIR pursuers having arrived at the scene of conflict, Richard Hamilton was conveyed before the officer in command. With a frowning brow and contemptuous indifference of manner, peculiarly irritating to a young man possessed of high spirit, Captain Dreghorn questioned him regarding his companion. On young Hamilton's indignantly refusing to surrender his comrade's name, he was sternly ordered to the rear. One of

Captain Paton's assailants then approached, and, pointing towards the wood, whispered a few words in his leader's ear.

"No, no," the officer replied, in an angry tone; "no further time can be lost in hunting after the rascally rebel. We must on to Edinburgh and join Dalziel."

So saying, he gave the order to march. In gloomy silence Richard Hamilton performed the journey; and so disgusted was he with the brutal jests and coarse levity of his companions, that it was with feelings of undisguised satisfaction he saw the church spires of Edinburgh rising in the distance.

On their arrival they found the city in a state of excitement. But a few hours previously, the unfortunate men taken prisoners at Pentland had been dragged through the streets and conveyed, some to be guarded in the Greyfriars churchyard, and others to St. Giles's Church, in the west corner of which they now lay in *durance vile*. For that temporary prison young Hamilton was also destined. As he passed along the crowded thoroughfares, his elegant appearance and undaunted mien inspired no little admiration and sympathy in the breasts of the beholders. Many a manly voice cried, "God bless and protect him;" while tender-hearted women wept to see so stately a youth in the hands of the royalists.

For the space of three weeks young Hamilton remained shut up with his companions in misfortune, many of whom died from their wounds, while others sickened and pined under the influence of too close confinement. Imagining himself destined to undergo a tedious imprisonment, only to be ended on the scaffold, his spirits also began to sink, and he felt, as many do when similarly circumstanced, that speedy death would be preferable to prolonged suspense respecting his ultimate destiny.

Late one evening, at the end of the above-mentioned period, while seated in a corner by himself, brooding over the misfortunes of his beloved country, a slight noise attracted his attention. He listened, and discovered it to be produced by a key turning in the lock of a postern-door near at hand. The next moment it opened, and an old woman obtruded her head. Peering cautiously around, her eyes at length rested on young Hamilton. After a moment's earnest scrutiny, she beckoned him towards her.

"Your name?" she said, on his approach.

He gave it.

"Follow me," she whispered; and, pulling him forth by the hand, cautiously secured the door. Outside the church the fog was so dense that the nearest objects were hardly discernible. Interrupting Richard Hamilton in the midst of his grateful acknowledgments, his guide conducted him to a close situated at the back of St. Giles's, and furnished him with a suit of seaman's clothes she had lying in readiness. Thus disguised, she led him forth in safety. Passing hurriedly along divers streets, she turned into a narrow lane near the foot of Arthur's Seat, and, pausing before a door, knocked thrice after a peculiar fashion. It was opened cautiously from within; they entered a low dark room, and the next instant young Hamilton's hand was warmly grasped in that of Captain Paton.

"Now Heaven be praised!" delightedly exclaimed the captain, apparently enjoying his friend's puzzled expression, "that old Bess has succeeded in rescuing you from the hands of the royalists. I hardly dared hope she would accomplish her undertaking."

"How came you to be aware I was imprisoned in St. Giles's?" inquired young Hamilton, after thanking his friend again and again for the kind interest he had evinced in his behalf.

"Why, you see," replied the captain, "having ascertained from reliable authority that you had been conveyed thither, in company with the rest of the prisoners, until such time as the Privy Council decided your fate, I came to my old acquaintance Bess Robertson, who professes a great attachment for my person, hoping she might be able to promote my endeavours to accomplish your escape. Fortunately, being nearly connected with one of the men appointed to keep guard outside the church gates, by dint of flattering speeches and a piece of gold, she succeeded in enlisting his sympathies in behalf of

the unfortunate Whigs. In answer to her entreaties, he lent her a key to the side postern, by which she could obtain admittance to the church. Having received a full description of your person from me, she went thither this evening. Heaven proved her friend, and you have been rescued from a cruel captivity. In a few nights hence she will repeat the experiment, I trust with equal success, for the sake of our hapless countrymen languishing in the narrow hold."

"Heaven grant it!" replied young Hamilton; "for many of the poor fellows pine after their pure native air, and are waxing dispirited at the gloomy prospect in store for them." Captain Paton sighed heavily.

"You seem sad," said Richard Hamilton, watching his friend's varying expression with anxious brows. "Are things worse since Pentland?"

"Worse!" exclaimed the captain, bitterly; "my heart swells well-nigh to bursting, when I think on all that has taken place since then. A prisoner within the walls of a church, you knew not what events were occurring without in the city; barely two weeks have elapsed since ten of the hapless men taken at Pentland have expiated their offence on the gibbet."

"The gibbet!" faltered his horror-stricken listener.

"Even so; and the heads of the martyrs are at this moment suspended in Kirkcudbright, Kilmarnock, and Hamilton!"

"Oh, horror! And the survivors?"

"Are doomed to experience the most dreadful persecution. The property of all concerned in the late rising is confiscated; General Dalziel and his men are this instant scouring the country in search of parties suspected of being in arms with the Whigs, and faithful subjects are strictly enjoined to assist the authorities in their endeavours to capture the rebels, on pain of being considered equally criminal." Young Hamilton smote his hand on his forehead.

"Captain," he passionately exclaimed, "my soul is on fire to avenge the wrongs inflicted on my countrymen; the sad news you tell me causes the blood to bound madly in my veins; yet what can my single arm accomplish?"

Captain Paton remained for some moments silent, apparently plunged in thought.

"Richard," at length he said, calmly, "you must instantly set sail for Holland."

"What!" cried young Hamilton in amazement, "do you counsel me to quit my country?"

"For the present, I do. Curate Philips is still your inveterate enemy. When informed of your being taken prisoner, he came to Edinburgh on purpose to compass your certain destruction. Yesterday I learned he was still here, and had lodged such information with the prelates as would effectually prevent your being set at liberty. Once advised of your escape from their hands, his rage will know no bounds, nor will he rest until your hiding-place is discovered. Should you remain in Scotland, ere long the scaffold will have another victim." Young Hamilton paced the room impatiently. Captain Paton resumed. "In Holland, whither many of our ministers have fled, you can with safety remain until such time as the grand struggle for freedom commences; then you must return to fulfil the task God has appointed you." The youth wrung his hand.

"You are right," he said; "but my dear sister, I cannot depart without seeing her once more."

"You must sail with the next vessel," said Captain Paton, "otherwise it will be too late."

Young Hamilton reflected a little.

"Curate Philips is in Edinburgh," he replied; "there-

fore I may venture to Lindenvale without fear of discovery; this disguise will suffice to protect me."

"Your plan seems a good one," said Captain Paton; "there is no safety for you here, and the curate will never dream of searching for you in the neighbourhood of your own home."

"But how shall I ascertain when the ship sails?" inquired young Hamilton.

"Leave that to me," replied his companion. "You must quit Edinburgh this very night: every instant is of vital importance; therefore, longer delay on your part would be worse than madness. Avoid the high roads, and manage so as to arrive at Lindenvale after night-fall, lest your entrance be observed. Once there, keep closely concealed until such time as you observe a signal flame burning on the heights above the glen. My hand will have kindled the beacon, and you will know the vessel is on the point of sailing. Then hasten to me; I will accompany you thither, and see you safely on board ship."

The tears glistened in young Hamilton's eyes.

"Farewell for the present," he said, wringing his comrade's hand: "together we have witnessed the triumph of tyranny; may we be spared to see its downfall, and our country freed from the oppressor's sway."

Captain Paton re-echoed his prayer, and they parted amid expressions of mutual esteem and regret.

Late in the evening of the following day Richard Hamilton entered the town of Lanark. In order to avoid remark, he walked leisurely along the streets, surveying surrounding objects with that careless indifference supposed to be peculiar to seamen ashore. Suddenly he was startled out of his assumed equanimity. Observing a number of people crowded together and gazing earnestly on the market cross, his eyes followed the direction of theirs, and he beheld a spectacle which made him shudder. Suspended therefrom were nearly a dozen human hands. Turning away his gaze from the sickening sight, he demanded of an onlooker the reason for such an exhibition. The man informed him they were the hands of those who had suffered in Edinburgh; their being publicly exposed in Lanark was owing to the circumstance of the Covenanters having renewed their covenants there during the late rising. Uttering an exclamation expressive of indignant disgust, young Hamilton pursued his way, but not unattended. While viewing the ghastly spectacle, he had no leisure to mark the inquisitive gaze of two sinister-looking eyes which flashed forth on him from beneath the shade of a broad-brimmed hat, scanning his every feature with intense eagerness. The few words he exchanged with the bystander caused a ferocious gleam of joy to pass over the countenance of his observer, whose scowling brows relaxed, and his thin lips parted with a smile of deadly hate, as he muttered, "It is he! At length I shall be revenged." So saying, he wrapped his large cloak more closely round him, and stole noiselessly and unobserved after the unconscious youth.

With downcast eyes and faltering steps, young Hamilton walked onwards in the direction of Lindenvale. The horrid scene so lately witnessed haunted his imagination. Vainly he strove to banish it from his thoughts. On every tree he fancied the warning hands were suspended, while the silent air seemed thick with similar relics of the martyred dead. Thus he proceeded on his lonely way, his sole companions the ghastly phantoms of his teeming brain, his footsteps tracked by one who thirsted for his blood. On entering the glen, he paused to gaze on the well-remembered scene. More than three years had elapsed since he fled

from Lindenvale, and now he was returning, not as its rightful possessor, to claim his own before the eyes of the world, but like a criminal, taking advantage of the favouring darkness to perpetrate some deed of guilt, he had come to see it once more ere quitting his native shores, perchance for ever. As the youth's eyes wandered over the dale, dimly perceptible in the gloom of night, and his ear drank in those peaceful sounds so familiar in boyhood, memory conjured up many a blissful scene from the caverns of the past, and his pale lips trembled with emotion while he clasped his hands in mute agony to think they were vanished, never to be recalled. What sunny pictures did these sylvan glades recall! That nodding beech, on which his tearful gaze was riveted, what hallowed associations clustered around its bare and giant arms! In the long summer evenings, when the chastened rays of the setting sun, flashing on the rich foliage of the trees and velvet green-sward, crowned nature with a yet brighter halo of glory, in company with his loved sister he had listened to the glad tidings of salvation, flowing from a living mother's lips beneath its leafy shade. Yonder shady walk! Of what merry scenes it had been the silent witness, as he and his darling Harriet bounded along in all the careless gaiety of innocent childhood, making the welkin ring with bursts of happy glee. In after years how often had they strayed beneath the shade of the rugged elms, holding sweet communion regarding that life then stretching before them, decked in golden hues! And now? Ah, how different the gloomy present from the bright past! His hopes, bright as the tints of heaven's resplendent arch, had vanished in the battle of actual life; while his sister—ay, what of her? Darting hastily forward to a window from which a cheerful stream of light flashed forth into the darkness, he gazed wildly in, and beheld a scene that robbed his aching heart of half its pain.

CHAPTER IX.

At the upper end of the table, seated so that the lamp's rays shone full on his gray hairs and venerable countenance, was Mr. Weir. Before him lay the Scriptures, from which he seemed to be reading aloud to his young companion, who, seated opposite to him, was resting her head on her hand and gazing in his face with a look of mingled love and reverence impossible to describe. On her the brother's eyes became riveted, and his heart throbbled proudly within him at sight of her increased loveliness. Paler her cheek and more pensive her soft blue eyes than when last they parted, yet it seemed to him as though sorrow had gently breathed on her forehead and imparted a nameless charm more touching than beauty. His pious instruction ended, Mr. Weir closed the Bible; and, while the fair girl knelt before him, he placed his withered hand on her head and commended her to the watchful protection of God. Then followed a prayer for the absent one—for him who, in the vigour and hopefulness of youth, had been called upon to suffer in the cause of righteousness—that he might, through the gracious providence of the Almighty, be permitted to return in safety to her now mourning the absence of an only brother.

Young Hamilton's eyes became moist while witnessing the touching scene; unable any longer to control the feelings agitating his bosom, he tapped gently on the window and uttered the name of Harriet. That single word sufficed. With a wild scream of joy the maiden ran to admit him; soon brother and sister were clasped in a fond embrace. Little thought they that, unseen in the dark, one stood without, his face almost pressed

against the window-pane, glaring in on the rapturous meeting! The happiness of the united pair tortured the gazer's soul with jealousy. His guilty thoughts were arrested by a voice to which he keenly listened. It was young Hamilton who spoke. He was relating his story, and the faces of his fond listeners became clouded with sorrow as he described in glowing colours the harrowing scenes he had witnessed since leaving Lindenvale. Nearer and nearer to the window approached the pallid face, and the sinister eyes glared more fiercely as the youth depicted the battle of Pentland, Captain Nisbett's generous conduct, his capture by the royalists, and subsequent escape from prison; but when he spoke of his parting interview with Captain Paton, and the signal agreed upon between them, with a low laugh of exultation the listener withdrew from his station, and, shaking his hand menacingly at the loving group within, muttered between his teeth—

"Escape to Holland! ha! ha! not while the despised Philips lives to prevent you! *His revenge shall come with the beacon light!*"

The evening of the 29th of December closed in dark and stormy. Through Lindenvale glen the wind moaned and chafed like foreboding spirits proclaiming woe and disaster; overhead spectral-looking clouds swept along with incredible velocity. While the tempest raged wildly without, at one of the hall windows young Hamilton and his sister were stationed. Her arms were round his neck, and she gazed lovingly on him. Closer and closer she clung, as though fearing they were nigh separation. Fondly he kissed her forehead, and murmured some caressing words which dyed her cheeks with blushes. Of joyful import were the words he uttered; for he spoke in praise of her lover, and the maiden's bosom throbbed wildly under a happy sense of dawning brightness. There they stood gazing awe-struck on the storm-clad heavens, and listening to the sobbing wind chanting its dismal dirge amidst the leafless trees. Suddenly a spiral flame glimmered on the opposite heights. Harriet was the first to perceive it; with a low cry of pain she clasped her brother in her arms. The hour for his departure had arrived—it was the beacon light.

A deadly pallor overspread Richard Hamilton's face at sight of the warning flame.

"Harriet, Harriet!" he faltered, sweeping his hair back from his forehead with an impatient gesture, "I cannot, will not go! Rather would I die a martyr's death than leave my country in the hour of her greatest peril!"

Mr. Weir approached. "My son," he said, sorrowfully, "let not the dictates of your impulsive nature lure you on to destruction. Your lion-hearted friend did well to bid you leave Scotland for the present, while persecution rages fiercely and her suffering sons are unable to quell the oppressor's fury. Flee to Holland, and abide the hour when your bleeding country calls you home to fight for liberty and avenge her wrongs. Tarry not an instant; and may God protect you!"

Hesitating no longer, young Hamilton clasped his sister in a silent embrace and rushed from the room.

"Is he gone?" sobbed Harriet, clasping her hands in agony.

Even then he was dashing wildly through the glen. She listened until his footsteps were no longer heard, and then sank weeping on the shoulder of her aged friend.

"Be comforted," said Mr. Weir, in soothing accents, "Richard will soon return, and——"

He was interrupted by the loud report of a gun.

"My brother, my brother!" gasped Harriet. "Oh, Mr. Weir, there is some dark treachery at work!"

Vainly she strove to fly from the hall; her trembling limbs refused their office. Tenderly the old man supported her in his arms and besought her to be calm. She interrupted him with a piercing shriek, and pointed towards the window.

"Oh, horror! that fearful countenance!" she faltered in dismay. Freeing herself from Mr. Weir's encircling arms, she staggered forward, exclaiming, "Wretch! hast thou indeed slain my brother?"

"Revenge!" hissed the parted lips, and with a mocking laugh Curate Philips disappeared in the gloom.*

"Secure the murderer!" cried Mr. Weir, as Harriet sank lifeless on the floor.

In obedience to his commands the domestics procured torches and ran forth to search the glen, while he himself hastened to restore the maiden to consciousness. His efforts were speedily crowned with success. Slowly she unclosed her eyes, but they opened on wretchedness; at that moment the door was flung back to admit the bleeding body of her brother.

"Richard! my beloved Richard!" Sobs choked her utterance, and she gazed with unutterable anguish of soul on the prostrate form of him she loved so fondly. The door once more opened to admit Captain Paton. The usually stern soldier was overcome with emotion; yet, ashamed to betray his weakness in presence of the assembled household, he impatiently dashed away the tears fast dimming his eyesight, as he hoarsely exclaimed, "The murderer has escaped me; and rather would I have laid my head beneath the axe than that the author of so foul a deed should escape the doom so justly merited. After seeing the poor youth safe in your hands," he said, addressing the domestics, "I traversed the glen in search of the base assassin, but he chose his night well; the scowling heavens and raging blast shielded him from my vengeance."

In a voice rendered almost inarticulate with emotion Harriet rendered a description of what occurred at the window, and expressed her conviction that Curate Philips, though he had not with his own hand perpetrated the foul deed, had caused it to be done. Captain Paton ground his teeth with anger while listening to her recital.

In the meantime young Hamilton had been placed on a couch, and Mr. Weir, who possessed some little knowledge of surgery, proceeded to examine the wound. He pronounced it fatal, the ball having penetrated the left breast, and passed near the region of the heart. With a Christian's pious resignation, the weeping girl received the sad intelligence; kneeling beside the speechless youth, in words of touching pathos she commended his soul to God. Mr. Weir, with the tears coursing down his furrowed cheeks, re-echoed her prayer, while Captain Paton stood a little apart, his face buried in his hands. So absorbed were all present with the affecting scene that the entrance of a stranger passed unnoticed. For an instant the last comer remained standing on the threshold of the chamber, gazing with inquiring eyes on the sorrow-stricken group; then, removing his cap, he advanced, and, sinking on his knees beside Harriet Hamilton, in faltering accents pronounced her name. She turned, and beheld Walter Nisbett. The youth met her eyes with a gaze truthful as her own, and, withdrawing a sealed packet from his breast, placed it in

* The writer has attempted to narrate one of the many legends and traditions which still abound in the south-west of Scotland. The existence of these legends has so far a historical value that they confirm Bishop Burnet's description of the times, as quoted on p. 565.

her hands. She opened it with trembling fingers. It contained her brother's pardon, granted by the king, through the intercession of Sir Henry Nisbett, Walter's father. Weeping, she made known its contents to Mr. Weir. The old man warmly pressed the officer's hand. "Death has compassed his freedom," he said, sorrowfully.

The sound of their voices roused the dying youth from his lethargy. He slowly unclosed his eyes; they rested on the anxious features of Captain Nisbett. A faint smile flitted across his countenance; extending his ice-cold hand, he grasped the outstretched one of Walter Nisbett. Sadly the officer gazed on the marble forehead, now damp with the dew of death—death, the bestower of new life—the reconciler.

Before her brother's fading vision Harriet displayed the parchment, and proclaimed her lover's noble generosity. A flush suffused young Hamilton's countenance. With a sudden effort he raised himself from the sofa, and, taking his sister's hand in his, pressed it fondly, then placed it in that of the royalist officer. In answer to his petitioning look, Mr. Weir blessed the kneeling pair.

With a deep-drawn sigh the youth sank back on his couch, and the torch of life, that for a moment had flickered and brightened, was extinguished in death.

JUTE AND THE LINEN TRADE.

ANY one at all acquainted with "the linen trade" knows how important a part jute plays in these fabrics. In modern times it is nearly as important an article of commerce as hemp or flax: in many respects it is even more important than these fibres, and, in the special trade in which it is used, holds a place not very far short of King Cotton himself. Jute is a plant cultivated all over India, like flax, hemp, or cotton, for the sake of the fibre it yields. It has long been known in the East, and is there largely used in the manufacture of cloth, ropes, and twines. The bags in which rice, sugar, coffee, and the like commodities are imported into this country and the wide world over, are all formed entirely of jute, and the coarse cloth of which they are made is called "gunny cloth."

The herbaceous plant from which jute comes is of the same botanical family as the Linden or lime-tree (*Tiliacæ*)*. There are two species of it; the one which is best known is cultivated in and around Aleppo, and its green juicy leaves are eaten as a pot-herb in Egypt, Arabia, and Palestine—chiefly, however, by the poor. Hence the old name of the plant was *Olus Judaicum*, by the French rendered *Mauve de Juif*, and by ourselves *Jew's Mallow*. The plant usually grows to a height of from five to ten, or, under very favourable circumstances, even twelve or fourteen feet. The stem is from one-third to two-thirds of an inch in diameter; it is erect, smooth, cylindrical, and more or less branched towards the top; the leaves are smooth, and of a lively green; the flowers are small and yellow, and the seeds are very numerous. No plant is more grateful for good cultivation than jute, and it thrives best in a good loamy soil, well manured, or which has been well manured under a former crop. The seed is sown in the end of April or beginning of May, the plant flowers in the rainy season, and the fruit is ripe in September or early in October. When the crop is ripe for cutting, the plants are cut close to the roots, their tops are clipped off, and they are then tied in bundles of from 50 to 100. They are next steeped, as flax or hemp is steeped, till the

bark decomposes; the bark is then stripped off, and the fibre is well washed, dried, and tied up in bundles for the market. In order to procure the best quality of fibre, the jute must be cut shortly after it has flowered, which is from the middle of July to the middle of September. It generally flowers about one hundred days after it has been sown. Jute, when first prepared, is of a beautiful, pearly, glossy white, but it gradually changes to fawn, and then to light brown. The greater proportion of the jute that is grown in Bengal is made into cloth in the districts where it grew. This industry occupies all the working classes of eastern Lower Bengal. The Mussulmans spin only cotton, but the Hindoos prefer this manufacture. It pervades all ranks of society, and penetrates into every household, almost every one, man, woman, and child, being in some way engaged in it. Boatmen, husbandmen, palankeen carriers, domestic servants, pass their leisure moments, distaff in hand, spinning gunny twist, for making the gunny cloth. It is spun by the *takur* and *dhara*, the former being a kind of spindle which is turned upon the thigh, or the sole of the foot; and the latter a reel on which the thread is wound up, when sufficiently twisted. Another kind of spinning machine, called a *ghurghurea*, is occasionally used. A bunch of the raw material is hung up in every farmer's house, or on the protruding stick of a thatched roof, and every one who has a moment's leisure forms, by the help of these rude and primitive spindles, some coarse packthread, of which ropes are twisted for the use of the farm. Others from this packthread spin a finer thread for the formation of gunny cloth; and, as there is a loom of a rather primitive sort in nearly every house, very much of the cloth is woven by women.

The jute intended for sale in Calcutta is taken from the districts where it is grown in boats of various sorts, tied up tightly in bundles. By-and-by the iron horse will be running in all those parts, and cheapening our jute for us. Arrived at Calcutta, the jute is taken from the boats and piled up in the bazaars for sale. The business at these bazaars is all done, as with us, through the agency of brokers. After the jute is purchased, it is removed from the bazaars to public packing establishments, of which there are many in Calcutta. There it is carefully sorted, arranged, and marked, to indicate its quality, and finally packed in bales weighing rather less than three hundredweight each. The pressure in packing the bales is applied by powerful screws, which are generally placed in a loft over the press, and worked by manual labour. After the jute is packed, it is either taken directly on board ship or warehoused in Calcutta, ready for shipment. The jute which is intended for our market is shipped chiefly at Calcutta, and is thence transported to either Liverpool or London. It is a curious instance of the waywardness of trade that very little jute is used in either of these two places. There is more jute used in the manufacture of goods in Dundee and neighbourhood than in all the other parts of the United Kingdom put together—we may say, with the exception of India itself, of the whole world. Dundee is, moreover, a very extensive shipping port. Vessels of all sizes sail from its harbour to nearly all parts of the world. And yet jute is brought, say, to London, warehoused, sold, re-shipped to Dundee, or sent by rail. There it is made into cloth, and that cloth often comes back to London to be sold. Several merchants in Dundee have tried direct shipment from Calcutta; but hitherto they have substantially failed in the desired object. You may as well try to turn a river from its channel with your foot, as to force trade to leave its

* From the fibre of the Linden comes the bast, used in manufacture of Russian mats.

wonted and well-worn channels. Yet it is calculated that this circuitous method of importing the raw material increases its cost by something like £2 per ton.

To the little town of Abingdon, in Berkshire, belongs the credit of first introducing jute as a fibre into the manufacture of coarse cloths and carpetings. The East India Company tried hard, towards the close of last century, to introduce the fibre to the manufacturers of this country; but, after a varied series of costly efforts and experiments, they utterly failed. And yet the Indian cloth, called "gunny cloth," made wholly from jute, was well known and largely imported into this country. Towards the close of the first quarter of this century, a few bales of jute found their way to Dundee. At this time the spinning and weaving machinery were both very far behind the position they have since reached and now occupy, and some of the jute was actually spun by hand. The fibre of jute is very much longer and somewhat coarser than that of flax; it is drier, harder, smoother, and less pliant, and so the yarn was rough and unkindly. Effort after effort was made to spin the recalcitrant jute, but they mostly ended in disappointment. After many an up and down, jute began to be used in combination with flax. But there was a prejudice against it. The dog had an ill name, and it was thought advisable to hang him at once, and so put him out of the way for ever. It was said that jute would not stand water; it had this, that, and the other fault, and merchants, in the purchase of yarn, took good care to have a guarantee that there was no jute mixed with it. But there were shrewd, intelligent, practical men among both the merchants and manufacturers of Dundee, and they persevered. They were finally rewarded with a success far beyond their most sanguine expectations.

"In the beginning of 1833, the late Alexander Rowan, of Dundee, brought from London some specimens of Abingdon* hand-spun jute line-yarn, and of cloth made therefrom," and he induced a spinner to spin him some jute-yarn in imitation of these samples. This was about the first spinning of pure jute by machinery, and the date was 1833.

"Towards the end of 1833 the samples of the Abingdon manufacture, and the progress which had been made in spinning the fibre, caused James Niesh, of 'the Laws,' then a manufacturer in Dundee, to turn his attention to the manufacture of jute carpeting.†" He consigned some of his earliest productions to New York, where, after lying neglected for a year, they were brought to public sale, and sold at such a price as netted a profit of from four to five hundred per cent. But, of course, such a profit as that was too good to continue long. Mr. Niesh persevered and succeeded in creating a large and lucrative business in this department; and a few years ago retired with an ample fortune.

The day of jute had dawned on Dundee. "For years after its first introduction the principal spinners refused to have anything to do with it, and cloth made from it long retained a tainted reputation. Indeed, it was not till Mr. Rowan persuaded the Dutch Government about 1838 to substitute jute yarn for that made from flax tow in the manufacture of the coffee bagging for their East India possessions that the jute trade in Dundee got a

* The little town of Abingdon, though it has the merit of introducing the jute trade into the United Kingdom, has not itself largely profited by it. Its population, which in 1841 was 3,500, had hardly reached 6,000 in 1851; since which period it has not very greatly increased—not in the ratio of many other country towns. Jute is still manufactured there in various ways.

† "Some of the yarn spun in Abingdon, of which Mr. Rowan brought samples to Dundee, was dyed, and among the specimens of cloth was carpeting made of the jute yarn" ("The Linen Trade, Ancient and Modern." By Alex. J. Warden.)

proper start. That fortunate circumstance gave an impulse to the spinning of the fibre which it never after lost, and since that period its progress has been truly astonishing." In 1832 the quantity of jute imported into Dundee was about 180 tons; in 1838 it had gone up to 1,136 tons; in 1839 that quantity was more than doubled; in 1848 the importation had nearly reached 9,000 tons; in 1858 it was upwards of 30,000 tons; and in 1863 it had reached a total of about 47,000 tons. A new feature also begins to appear. In 1838, and on to 1847, the jute was all brought by sea; in 1848, 20 tons came "by rail." Next year 4,196 tons took the same short, swift road; and in 1863, while 14,710 tons came by sea, 14,710 tons were brought "by rail." Mr. Warden says, "The slightly nature of jute, the regular and even thread which by the improved machinery is formed of it, and the smooth, tidy, and clean appearance of jute cloth are all pleasing to the eye, and therefore attractive. These qualities, combined with its cheapness, have served to recommend it to consumers, and to bring it into general use. Now, instead of being used stealthily as of old, it is the only material spun by several of the leading firms in Dundee. The colossal proportions of some of the works devoted solely to spinning and weaving jute may be imagined when it is stated that the consumption of the raw material in several of them exceeds 500 bales each a week; and one or two of them each cut up about 1,000 bales weekly." For many a day after its successful introduction, nearly all the jute manufactured in the kingdom was imported into Dundee.* Now, however, the use of jute is extending to various other places. It is used in London and the district around for various purposes. "A small quantity of fine jute is cut up in Yorkshire, and used in the formation of woollen fabrics. In Lancashire several works have of late years been started for spinning and weaving the fibre." The total exports from Calcutta to Great Britain in 1863 were about 50,000 tons; of these 47,000 came to Dundee.

France tried her hand at jute. From small beginnings she got up as high as 15,000 bales in 1853-4, and in 1860 to 33,000; since which time the fall has been rapid. In 1863 she had fallen to 3,000 bales. In 1856-7 America had imported as many as 50,000 bales. Since that time her fall has been rapid. In 1862-3 only 5,561 bales had gone to our cousins there.

Jute is one of the most easily-dyed fabrics known, and the colours it takes on are both bright and beautiful. It takes some colours easier than others. It is easily brought to a rich cream colour, either in the fibre, yarn, or cloth. It is very difficult to bring it to a clear white, without injury to the fibre. The common dyes are quickly applied, but they are very fugitive; and when exposed to the sun's rays soon become faint and dull. It requires a more complex process than that used ordinarily to make the colouring materials thoroughly penetrate the jute fibre, which is of a dry smooth nature, and to a considerable extent impervious to moisture. It is therefore very difficult to make the colour "fast." But it *can* be done, and the better class of goods made of dyed jute undergo this process, which makes the colours both brighter and faster. Some colours are as durable on jute as on other fabrics. But, looking back on the difficulties that have already been overcome, we doubt not that jute has yet before it a bright, a brilliant, and a long expanding future.

* The name of the different kinds of "goods" manufactured from jute solely is now legion. The list comprises such as the following:—Sackings, sheetings, baggings, hesians, hop-pocketing, osenaburgs, ducks, carpeting, &c., &c., besides coarser fabrics, such as rugs, &c.

A WORD ON TOYS.

THE world of the little child may be regarded as a world of toys. The child sees, hears, and handles nothing that is not in some sense a plaything to it—unless it may be in those sad cases, happily exceptional, in which the infant years are years of pain and suffering. Usually, in spite of the inevitable maladies incidental to childhood, we enter upon life as it were through a golden gate, and all that we see and hear and are conscious of is more or less imbued with a halo of glory as mysterious in its source as it is sure to be transient in its duration. Fortunate is it for childhood, however, that the heaven “which lies about us in our infancy” is not so fleeting or so short-lived as some moralists of an ultra-sombre cast would have us believe. We live in the toy world longer than certain severe people, who have forgotten their own childhood, if they ever had any, imagine we do, or desire that we should do; and so long as we are children, we do not relish our toys a whit the less, but all the more, from the disfavour they meet with from those who ought to know better.

To the child of tender years toys are realities and realities are toys; if he is healthy and well at ease, and has been wisely cared for, he has not yet learned the distinction between things of value and things of no value, things serious and things trifling. Nothing is trifling to him, simply because nothing is serious; he is in a manner outside of the world and the life of the world, and wrapped up in a world and life of his own. Toys and playthings are his property, and for property that is not a plaything he is wise enough as yet not to care a straw. He cannot get up to the level of the world—he does not wish it; but, by means of his toys and his toy heart, he brings the world and all that is in it down to his own level, which is far better for him.

The reader will object, perhaps, that the children of the very poor have no toys, and that therefore—hapless little creatures!—they must get to the level of their world pretty soon. Alas! there is too much truth in that, and one can but heartily wish it were not so—all honour to those good ladies who have latterly done something towards supplying this want by sending toys in abundance to the children's wards in our London hospitals. But the objection is not absolutely true. Given a healthy child, and he will have toys whether you will or no; with no funds to buy them, he has the faculty of making them out of anything—out of sticks, straws, bits of wood or string, broken crockery, tobacco-pipes, and that ubiquitous and inexhaustibly plastic material, the mud of the kennel; nay, just as the ploughman will often relish his meal better than the peer, so will the gutter-raking urchin taste a rapture over his own unsavoury creations such as never enters into the experience of the infant heir of ten thousand a year.

The importance of toys as helps to infant training, if we are to judge by the extension of the toy trade, has risen astonishingly in general estimation within the memory of the existing generation. We can recall the time when the toy-shop exhibited but a very limited stock, consisting mainly of dolls of wood or wax for girls, hideous-looking animals like nothing in nature for infants in arms, hats, balls, kites, and hoops for boys, and a few other miscellaneous items, among which figured prominently the tin-barrelled spring-gun, which propelled a skewer to the distance of some twenty feet, and the battledore and shuttlecock. How notably we have altered all that of late years! Enter a toy warehouse now—shop is hardly the word—and the *embarras de richesses* is enough to bewilder you. Not only are the

toys which are playthings infinitely more numerous, more varied in price, and better made, but toys of an entirely novel description, such as our forefathers never dreamed of, are even more abundant. They might be classed, though we are not aware that any classification has ever been made, as military toys, marine toys, musical toys, educational toys, and scientific and mechanical toys; and, besides all these, there would remain a large miscellaneous class not coming under either category. The military would embrace every known weapon of war in a miniature shape, together with tents and fortifications, and troops of horse and foot soldiers. Among the marine would be war-vessels, merchant-vessels, steam-vessels, and vessels of all rig, from tall frigates with their canvas all spread to the tiniest pleasure-boats and cock-boats. The musical are mostly of a class on which the performer is at once an adept without the pains of study or practice, though there are some curious exceptions to this rule in the case of instruments which may be bought for a few pence, and yet made to “discourse most excellent music” by those who will take the necessary pains to master them. Of educational toys the range is wider, extending from the alphabet to a tolerable knowledge of the facts of history both sacred and secular, and something like a competent course of geography; and even to the elements of geometry and mathematics. Most interesting of all are the scientific toys, among which some more or less simple application of steam marks the most prominent. Galvanism is also enlisted into the service of children, and we have toy telegraphs for the conveyance of messages, and toy electric machines exhibiting something like perpetual motion. The optical toys abound, including microscopes as low as a penny (formed of Canada balsam), magic lanterns, dissolving views, simplified for childish use, and endless modifications of the kaleidoscope. Of miscellaneous toys the list would fill a large sheet, their multiplication being due in good part to the utilisation of india-rubber, gutta-percha, and other manageable materials discovered in later days. There is no plaything which has undergone greater changes than the boy's ball, which years ago was but a wisp of hay rudely enveloped in a wrapper of sheep-skin, and is now a perfect globe of caoutchouc, either solid or hollow to suit his convenience, and of all imaginable sizes, from that of a walnut to that of a calf's-head. Hundreds of tons of the elastic caoutchouc are consumed annually in the manufacture of toys alone—doll's heads and comical masks and faces monopolising a good proportion of it, not a few of these specimens showing remarkable talent in the modelling, and affording no end of amusement, owing to the variety of laughable expression producible by pressing, pulling, twisting, and otherwise manipulating the pliable features; while some of them have even a quasi-faculty of speech, screaming when roughly handled, or uttering consecutive sounds recognisable by infant ears as “papa,” “mamma,” etc.

While we miss some of the old toys, such as the “bandoleer,” and the “tumbling tablets” of forty or fifty years ago, we find a hundred new ones in their place. Among the best are the carved wooden animals, which now comprise nearly all the known quadrupeds, and which are often produced in such excellence as saves them from the destruction to which toys are invariably doomed; and the imitation parrots and parroquets, clad in their gorgeous plumage, and uttering their wild, natural notes at the instigation of their owners. Among mechanical toys, those moved by clockwork are constantly growing more numerous. Rats and mice run round our tables or across the floor of the room, at a

rate that deceives even the household cat, who dashes after them and clutches them with teeth and claws. Paddle-wheel and screw vessels navigate our garden-ponds, and even make the passage of the Serpentine from one shore to the other. Carts and waggons travel

We are sometimes asked where all the toys come from, and how it is possible they can be manufactured to sell at the low prices at which many of them are bought. Their cheapness is not so great a marvel as it seems. When we reflect that men in Germany derive a large



about with loads of goods, drawn by horses with clock-work inside; frogs leap and croak; kittens run to the milk-saucer and lap; and, for those who have plenty of money to spare, the song-bird is made to perch and flutter its wings, and to carol a melodious ditty.

Everything seems to be now imitated on the toy scale. Toy houses, elaborately erected on the builder's model, are filled with toy furniture, from the kitchen with its cooking apparatus and domestic utensils, to the drawing-room with its mirrors and splendid accessories, and the bed-rooms decked out in the modern fashionable style. Not less complete is the collection of agricultural implements, with the wains, carts, ploughs, harrows, teams of horses, herds of cattle, flocks of sheep, and barn-door fowls, the accompaniments of the farm and farmyard; while, moreover, of many industrial trades, the working details may be gathered from the miniature productions of the toyman.

income by making lucifer-matches, sold retail at a penny a thousand, including the box that contains them, and that the maker can get at the most but two-thirds of the penny for his own share, we may cease to wonder that toys are cheap. Millions of them are made in German villages, where labour costs but little. They are made from waste material, and are for the most part the work of children and young persons in the long evenings of winter. Not a few are made, or half made, by machinery; and still more are the result of co-operative labours, conducted, as such labours always are, with systematic rapidity. In the toy trade there is scope for invention, and it frequently happens that a new idea is rewarded as liberally in this department of industry as in any other. The new toy, like the new book or the new fashion in dress, commands an abnormal price; and, until it has come down to the price at which it can be fairly produced, brings to its

proprietor an abnormal profit. Such must have been the case with the long-pegged metal tops that spin for twenty minutes or more; with the Pharaoh's serpents; with the Chinese fires; with the prismatic bubbles, aurora bubbles, etc., and with some of the new applications of electricity to toy purposes, most, if not all, of which must have been lucrative to their inventors ere, before reduction in price, they came into common use.

Quite as interesting a question is that which must occur at times to most people—namely, What becomes of all the toys? We know that the manufacture is enormous, and is ever increasing; that toys arrive at our coasts in shiploads almost every week, and that they find their way into all parts of the kingdom, even the most insignificant hamlet and village taking a share of them; so that, constant and redundant as is the supply, the demand never ceases. The answer to the question, What becomes of them? is not far to seek. Once made over to a child, a toy may, as a general rule, be considered as consigned to destruction. "Simple Simon," says a well-known juvenile classic, "cut his mother's bellows open to see where the wind lay." That is it: the bellows was Simon's toy; he couldn't make out the mystery of it, and he cut it open to satisfy his curiosity. It is always so with Master Jacky, or Master Bobby, or Master Anybody Else: the little man had two kinds of pleasure to derive from his new profession; he gets the first out of the legitimate use of it, whatever that may be, as long as it is a novelty, and the second and greater pleasure from rending it to pieces, and coming at the heart of its mystery. The more complex and puzzling the thing is, the more certain and the more speedy will be the catastrophe; nor should the little fellow be too severely blamed for this arbitrary mode of proceeding, or punished as mischievous, when he is merely pushing his pursuit of knowledge at a sacrifice. It is too much to expect the mannikin to go on puzzling himself day after day with a problem which it is in his power to solve at any time with a lusty kick, or a blow from his fist; one must condone the mischief on the ground of the provocation. Not but that there are other causes tending to the speedy dissolution of toys. Thousands of them are carelessly left out in the garden or playground, or afloat in the pond, and come to ruin or founder in the first rainfall—as will probably be the case with the horse and the schooner, if it be a schooner, in our illustration. We have seen dismal wrecks in the Serpentine and in the lake in St. James's Park, where noble vessels have gone down through overloading, and perished with all on board within sight of land. Then wooden animals are awfully subject to fractures, dislocations, and decapitations, especially when packed together higgledy-piggledy in Noah's ark; the head of Noah jammed fast between the hind legs of a rhinoceros, and Masters Shem, Ham, and Japhet, with their little Dutch wives, reposing topsy-turvy among the limbs, horns, snouts, and tails of unlimited *feræ nature*, so that, when they have to be let out, they exhibit a doleful array of surgical cases beyond the medication even of the glue-pot. Perhaps as fruitful a cause of their premature dissolution as any is the originally feeble constitution of toys; they are not made to endure, but to sell—to impart a fleeting pleasure to the youthful possessor, and then to vanish out of his sight and his remembrance, being replaced by new ones. This is the interest of trade, which would stagnate and come to grief were toys of a durable and robust constitution; and in the interest, also, let us admit, of the little folks, whose gratifications and delights are thus continually varied.

There are few things in which present times differ from the past more strikingly than in the estimation entertained by cultivated persons of the rights and privileges of little children. The abundant use of toys is one out of many evidences of this important change. It is seen by parents that the toy is not merely a delight to the child, but something more; that, if well chosen, it is an aid to self-discipline and self-resource, affording just that sort of employment and excitement which is as wholesome for a child's mind as good plain food is for its body. It follows that a careful judgment should be exercised in the selection of toys, so as to suit them to the years and temperament of the child. Some of the toys sold in shops are quite unfitted for children of tender years. We can remember an instance of a child in arms being frightened into a fit, which nearly proved fatal, through the sudden upspringing of "Jack-in-the-box" near its face. Toys may be made the means of much practical instruction, and when thus used they often show the bias of a child's mind, arouse his ingenuity, awaken faculties that might otherwise have remained dormant, and even determine his future course of life.

The spectacle of a happy healthy child at play amongst his toys, while it is of all sights the most fascinating to a loving parent, is also one of profound and touching suggestiveness. It is at once a kindly satire upon the eager pursuits and struggling earnestness of the grown-up man, and an intimation for whoever will accept it of the real intrinsic value of the objects towards the attainment of which man is too prone to devote all his energies. And all the while there is this grand difference—the child has, and enjoys to the full, that satisfaction of heart and feeling which, his childhood once past and gone, he shall never taste again, however complete his prosperity in future life. It was the perception of this truth that prompted the marvellous verse of Wordsworth, with which we shall conclude:—

Behold the child among his new-born blisses,
A six years' darling of a pigmy size!
See where 'mid work of his own hand he lies,
Fretted by sallies of his mother's kisses,
With light upon him from his father's eyes!
See at his feet some little plan or chart,
Some fragment from his dream of human life,
Shaped by himself with newly-learned art;
A wedding or a festival,
A mourning or a funeral;
And this hath now his heart,
And unto this he frames his song:
Then will he fit his tongue
To dialogues of business, love, or strife;
But it will not be long
Ere this be thrown aside,
And with new joy and pride
The little actor cons another part;
Filling from time to time his "humorous stage"
With all the persons, down to palsied age,
That life brings with her in her equipage;
As if his whole vocation
Were endless imitation.

Thou whose exterior semblance doth belie
Thy soul's immensity!
Thou best Philosopher, who yet dost keep
Thy heritage! thou Eye among the blind,
That, deaf and silent, read'st the eternal deep,
Haunted for ever by the eternal mind—
Mighty Prophet! Seer blest!
On whom those truths do rest
Which we are toiling all our lives to find,
In darkness lost, the darkness of the grave;
Thou over whom thy immortality
Broods like the day, a master o'er a slave,
A presence which is not to be put by;
Thou little Child, yet glorious in the might
Of heaven-born freedom on thy being's height,
Why with such earnest pains dost thou provoke
The years to bring the inevitable yoke,

Thus blindly with thy blessedness at strife?
Full soon thy soul shall have her earthly freight,
And custom lie upon thee with a weight
Heavy as frost, and deep almost as life!

THE VOLCANOES OF AUVERGNE.

BY S. R. PATTISON, F.G.S.

III.—HISTORICAL PERIOD.

ON the high ground north of the Puy de l'Aguilles I found a fine Celtic camp. The ridges have suffered very little from degradation. The outline is bold, the situation commanding. A few miles northward of this, on the knoll overlooking Orcival, there is a Celtic sepulchre, a cromlech of the ordinary form. This is called the Tomb of the Virgin. Annually the priests lead a procession from the exquisite Romanesque church, which almost fills the dell, up to this station. The black image at Orcival, the object of pilgrimage, is then for a while deposited in the cromlech, amidst the bewildered wonder of the peasantry. Thus ever the honour which Paganism paid to the resting-places of the mighty dead is perverted by Romish superstition. The plateau above is still haunted in winter by wolves. One step further back, as shown by some fragments of skin preserved under the bosses of the church door, and we come to the epoch of bears. This leads us back to the caves and flint implements.

The district abounds in antiquities of the past Roman (Romano-Gauloise) type. Under the able guidance of M. Aymard, official *archiviste* of the district, I learnt to distinguish the different strata of archæologic remains. A day at St. Paulien, the site of a Roman city, will long be remembered with pleasure. The church has imbedded in its walls altars and votive tablets of Roman and Pagan workmanship, used as mere materials, just as conglomerates of a recent time hold the fossils of antecedent ages. I witnessed the repairs of an actual Roman road, and ascertained, from this and the remains of an aqueduct, that no change of level has taken place since the eagles of imperial Rome flew over Vellavia, after the submission of the brave but ill-supported Vercingetorix.

But our concern is with the volcanoes. We want to know whether they were burning at the dawn of modern history; whether they had long ceased; whether the bones at Le Puy may have belonged to hapless fugitives from the Roman sword, or to wandering Celts, or to some unknown aborigines. Now on this subject we have a curious tale to tell.

The present accomplished professor of chemistry at Oxford, Dr. Daubeny, visited and described Auvergne *con amore* thirty years ago. He remarked that the volcanoes must have ceased to be active before the days of Julius Cæsar, as it is inconceivable that so accurate an observer as the latter should be as near as Gergovia without noticing them, if then burning. He draws the same inference from the silence of the great Roman naturalist Pliny, who wrote fully on the volcanoes then known. He argues to the same effect from the omission of all notice of such phenomena in the writings of Sidonius Apollinarius, a bishop of Clermont or Auvergne, who resided on the shores of the volcanic lake Aidat, and wrote poems, panegyrics, and letters, highly esteemed in mediæval times, and still preserved. A learned reviewer of Dr. Daubeny's book, in the "Quarterly Review" for 1844, joins issue on this question, affirming that the bishop's writings do mention the volcanoes, and prove that they were in action so late as the fourth century. He founds his argument on expressions of Sidonius, contained in a letter written by

him to his episcopal brother at Vienne-on-the-Rhone; expressions which certainly would have been most apt to describe the terrors induced by actual volcanic eruptions. The Bishop of Auvergne was alarmed by rumours of a hostile invasion of Goths, directed against Romanised France. He writes to his brother at Vienne, informing him that he had enjoined, throughout his diocese, public prayers to God to avert the dreaded calamity. A similar injunction, he says, to that formerly issued by the bishop of Vienne himself, at a time when "earthquakes demolished the walls of Vienne, when the mountains opened, and vomited forth torrents of inflamed materials; and when the wild beasts, driven from the woods by fire and terror, resorted to the towns, where they made great ravages."

To this singular testimony the reviewer added expressions employed by Alcinus Avitus, the bishop of Vienne, who succeeded Sidonius's correspondent, in a Rogation Homily. This production appeals to earthquake and fire, to the doom of Sodom, to tottering hills and physical catastrophe, in a style which may have been effective by reason of the personal experience or recent tradition of volcanic outbursts. Vienne is about eighty miles from the most modern of the volcanic vents, twice that distance from Clermont. It is, however, quite possible that the forces, long silent—silent during the Roman conquest—may have, in some of the southern portion of the chain, had an intermittent fit of activity, the last gasp of the giant forces below—in the days of Sidonius. If so, then the bones at Le Puy may haply be those of Christians, disturbed in their cemetery on the hill by a rolling torrent of volcanic matters.

Still farther back in the ages, we arrive at the period of the Noachian deluge. Auvergne has been quoted as furnishing decisive negative testimony as to the universality of this catastrophe. The argument is a very simple one. "The volcanoes," it is said, "have not been ejected since the dawn of history; their cones must, therefore, have been in their present condition at the date ascribed to the deluge. They are in many cases composed of loose cinders, which would have given way and become wholly obliterated before any such rush of waters as the deluge requires; therefore the deluge never reached Auvergne, therefore it was not universal." Sir Charles Lyell, Dr. Daubeny, and others have given this argument the countenance of their names; a host of writers have adopted it as conclusive. I recollect the late Dr. Pye Smith, in conversation, urging it on my attention as conclusive. On my visit to these supposed incoherent and crumbling craters, I found them all sufficiently consolidated to bear not only the winter and summer floods of rain, but the tread of cattle and of men. There is no pretence for saying that they could not bear the rise and fall of diluvial waters without destruction. It is a curious instance of an ingenious hypothesis doing duty as if it were a positive fact. I do not believe in the universality of the deluge, in the sense in which it is opposed by these writers; other considerations than geological ones appear to me conclusive; but it may have been universal for all that the craters of Auvergne testify to the contrary. The volcanic hills present no more difficulty in the way than do the shattered slopes of many boulder-strewn mountains.

The unique character of the geology of this district renders it quite worth while to detain attention on the series of phenomena here presented. So great has been the amount of change since the commencement of the tertiary period, that without very full evidence the story would be utterly incredible. It is worth while to recapitulate.

1. The granitic floor is filled up with the white sands and marls slowly deposited by a vast lake spreading over the valley of Limagne.

2. This became by degrees dry land, and was partially overlaid by pebbles and drift. Tribes of palæotheres and water-birds enlivened the scene.

3. The soft strata were much cut down by streams and floods of water, leaving banks of the marls surmounted by rolled pebbles.

4. A new sedimentary deposit of sand took place in lakes formed out of the valleys.

5. This second series was again cut down by the action of rivers and floods.

6 and 7. A repetition of similar actions took place, of which there are still some traces left.

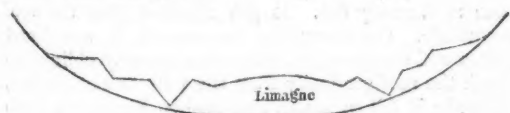
8. Volcanoes burst forth. The district was at this time thickly inhabited by a group of large quadrupeds adapted to the climate and soil, but wholly different from the former tenants of the land. Long periods of alternate repose and action occurred, in the course of which the face of the district was much altered,—lakes formed and obliterated, rivers dammed up or forced into new courses, mountains of scoria and hills of lava raised, and vast rents and dislocations made in the now solid lacustrine strata.

10. During the prevalence of volcanic action the animals inhabiting the country gradually changed; many species died out, others were introduced, the mammoth vanished, the elephant succeeded. The land and its conditions were becoming gradually approximated to the present, and, ere the last throes of volcanic force had ceased, man came to contest possession with the mammals. In the early part of this period many deluges occurred which changed the face of the country in places now discernible, and one great deluge occurred, accompanied by volcanic ejections, after man had appeared on the scene.

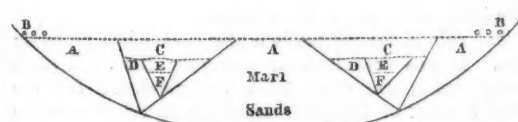
11. The surface of the land as we now see it has been the theatre of man's works since the earliest dawn of recorded history.

There are gravel-beds of all ages intermingled with the strata, furnishing proof of torrential action, very far exceeding the powers of present streams. At Tarves the ground is so thickly strewn over with large boulders that the common people call it the cemetery of the insane.

A diagram will assist in elucidating the succession of these great changes.



NO. 1.—PRESENT CONTOUR OF THE COUNTRY, VOLCANIC ACTION OMITTED.



NO. 2.—RESTORED SECTION.

- A, Summit-level of filling up of ancient lake with sands and marl.
- B, Blocks of stone strewn by torrents on edges of deposit.
- C, Valleys first scooped out of sediment by rains and rivers, leaving masses of A.
- D, Second filling up of valleys with sediment and gravels.
- E, Second excavation of valleys, leaving banks of D.
- F, Third filling of gravel, etc.; repetitions of this process on minor scale afterwards.

All the foregoing relates to the changes effected during one period only of the earth's history, or at most during two such periods, called the tertiary and quaternary. Antecedent to these were the great ages of the oolitic and triassic systems, of the coal, of the thick series of slate rocks, until the mind is baffled in the attempt to assign a chronology for such an enormous sequence. Suffice it for us to say, "And thou, Lord, in the beginning hast laid the foundation of the earth; and the heavens are the works of thine hands."*

Auvergne is one of the few parts of France which possesses no traces of the English. It never became a province of England, either by descent or conquest, and none of the bloody fields, where the armies of the two nations have met in deadly encounter, lie within its borders. A reader of Froissart might imagine otherwise; for some of his most piquant stories are told of deeds of pillage and cunning done at Mont Ferrand, and the demolished fortresses near La Roche Vendaix, by the English. But by this term the worthy chaplain designates the Gascon knights who were partisans of England, and who in that behalf, from 1350 to 1380, robbed and held various castles and towns.†

The religious condition of Auvergne is truly deplorable, owing to the prevalence of gross Popery and ignorance; yet, even from amidst this darkness, some souls have seen and embraced the light, which, through chinks as it were, reached their position. There is a narrative tract, No. 35, in the series of the Paris Society, which gives an account of the conversion and holy life of a former curé of Mont Dore. The good man, whilst crossing the mountains at Christmas-tide, to visit a sick parishioner, was overtaken by a snow-storm, had his leg broken, became buried in the snow near La Tour, lay undiscovered for two nights, and, when rescued by his flock on Christmas-day, revived with difficulty. He attributed his conversion to the convictions which the experience of this peril awoke in him, and lived to testify, by teaching and action, his gratitude to his Saviour for the double deliverance.

On the southern borders of the volcanic district we come upon the Protestantism of the Albigeans. The love of the truth appears to have survived, in these parts, the ruthless efforts heretofore made to stamp it out. At Thiers a revival of true religion took place some years ago, through the simple instrumentality of a sale of Bibles there by a Geneva hawker. A tumult ensued. The people raged; some received the word with all gladness; others scoffed; a little church was formed, a new centre of light created. Verily it is the old story.

Such cases are, however, truly exceptional. The prevalent religionism of Auvergne is Mariolatry. An immense statue of the Virgin now crowns the high rock which rises in the midst of the city of Le Puy. This is representative of the whole district.

The actual object of passionate regard and devotion is usually a small black image, said to have come from the East. I found this to be the boast of the ecclesiastics equally at the unrivalled Romanesque churches of Notre Dame du Port at Clermont, of Notre Dame d'Orcival at the latter place, at Le Puy, and at Besse. At Le Puy a goldsmith told me that the real image had been destroyed at the Revolution, and, though the present copy was made from memory, and was a good likeness, yet, as he knew the man who had made it, and what he had been paid for it, he had no faith in it! At Orcival,

* Hebrews i. 10.

† See Froissart, by Johnes, vol. ii., pp. 8, 316-442.

which I approached on horseback from Mont Dore, the outside and inside of the beautiful church is decorated with votive offerings of all kinds. A little volume is sold at Orcival, narrating miraculous cures said to have been effected by the agency of Our Lady. The instances are too sad for amusement, but are unfitted for anything else. The good hostess at the village inn professed to believe in them, but at the same time declared that her only hope of salvation lay in the efficacy of Christ's work.

A few years since two ecclesiastics published a volume of travels in this district. They appear to have been men of intelligence and candour. The following extract will serve, without any comment, to describe the condition of things as regards the homage paid to the Virgin:—"But that which interested us most at Vassiviere was the miraculous figure of Notre Dame. It did not resemble any of those we had seen throughout Auvergne, which are, more or less, after Byzantine or Gothic models of art. That at Vassiviere is black, of the same kind as those at Notre Dame du Port, at Clermont, Notre Dame du Puy, and of Passet at Rodez, made of cedar or ebony. This is the cause of their good preservation, for these woods are obnoxious to insects. A pious tradition, credible though without historical foundation, attributes the discovery of this quality in wood to St. Luke, who was skilled in the arts and sciences. Every summer they carry this miraculous image in procession, from Besse to Vassiviere, where it remains for three months, and is then returned with equal ceremony. The *fête* is celebrated on the 2nd of July, according to ancient usage, and always attracts a great number of strangers. One sees there the bathers from Mont Dore, pilgrims from all parts of Auvergne, to invoke that aid which the church, with good reason, calls the succour of Christians, the refuge for sinners, the consolation of the afflicted, the guardian of the poor, the star of the mariner. Since the first dawning of the faith in Auvergne the worship of the Virgin has been held in honour. It is a country of ancient traditions, like Brittany. We were able to verify this on several occasions. We remarked numerous sanctuaries dedicated to the Queen of Heaven; and, when they are under the patronage of another, we always remarked that the altar of the Virgin was placed near to that of her divine Son. She blesses the harvest, she protects the traveller, she consoles the wretched. Poor and simple as she was in her life, she adorns and sanctifies the cottage of the Auvergnat mountaineer, always ready to listen to his humble prayers."

Thus are the poor ignorant peasants taught to give to the image of the Virgin the honour due to God only! Verily the doctrines of the Romish church require an outburst of fervent truth to overwhelm the prevalent error, just as the volcanic forces have issued forth and remodelled the land. Oh that all counterfeits of God's way of salvation were buried like the fossils, only to be dug up for the information of the curious!

ST. ANDREWS.

"The wind blows keen at Aberdeen,
So does it at Dundee;
O'er many a stately town it blows,
In Scotland's cold countrie;
But of all the towns the wind blows o'er
There's none so dear to me
As the gray towers of St. Andrews town,
St. Andrews on the sea."

Few towns in Scotland will repay a visit of a day or two so well as St. Andrews. The gray old tower of St.

Regulus is in all but perfect preservation, and carries the thoughts back to the very beginning of Christian worship in this land. It is built of a remarkably durable stone, not found in any of the quarries near: showing how wisely the ancient builders went to work at their craft. Local tradition has it that it was built about the fourth century; but the learned bring the date down to the seventh or eighth century. Close beside it stand the ruins of the famous Cathedral. It was founded in 1159, and was 160 years in the process of building. It stood in all 400 years. At the Reformation the mob rent off its roof, and utterly demolished the whole interior of the fabric. At a later period the neglected ruins were used as the nearest and cheapest quarry for all sorts of buildings. This spoliation continued till 1826, when the ruins were put in such a state that they may likely remain for many generations, to show how noble a pile once stood there. It is believed to have been one of the finest ecclesiastical buildings in the Scottish kingdom, second only, if second, to the famous Melrose.

At the Reformation, and long before it, St. Andrews was the seat of an archbishopric: and at that time its glory culminated. With the downfall of Popery fell also St. Andrews. Its harbour, never very commodious nor very safe, got choked up; many of the houses in the city went to ruins; the grass grew in its streets; and but for its two famous colleges—the United College of St. Salvator's and St. Leonard's and St. Mary's, or New College, the ancient city would have fallen to decay. Even so lately as 1830, it was one of the dirtiest, darkest, and most neglected of cities. But under the transforming hand of its late Provost, Major Sir Hugh Playfair, known to us in London as the father of Dr. Lyon Playfair, the old city has revived. It is hardly too much to say that, in regard to cleanliness, elegance, the breadth and admirable paving, lighting, and cleansing of its streets, and in regard to its rapid growth in every way, St. Andrews is the most remarkable city in Scotland. It is a city of ruins, round which a modern town of great elegance is rapidly growing. The old abbey walls, the ruins of the Black Friars Chapel, an elegant remnant of what must once have been a noble edifice; the College church, with the famous tomb of its founder, Bishop Kennedy, of the date of 1466, are all curious and rare. This last monument is said to have cost a sum equivalent to £14,000 of our money. It sustained fearful damage about ninety years ago. The College church had a stone roof, nearly flat. It got reported that the roof was unsafe. On attempting its removal, it was found so firm and compact that they were actually obliged to detach the roof gradually from the walls and buttresses, and make it fall *en masse*, and Bishop Kennedy's tomb was sorely defaced. In 1683, six silver maces were discovered in this tomb, of which one was sent to each of the Colleges of Aberdeen, Glasgow, and Edinburgh. The other three are in St. Andrews.

The ruin of the old castle is also in excellent preservation. It was first built in the year 1200. It stood many sieges, was often taken and retaken; but the chief interest of the place centres in its relation to the Reformation period. In front of its gate was the Smithfield of St. Andrews. There sat Cardinal Beaton at an open window, which still remains, to witness the burning of that famous martyr, George Wishart. It was said "that the cardinal from the castle keep looked exultingly on the conclusion of the tragedy; and that Wishart, pointing to him, said that, seated there as he was, in all his pomp and power, the day was not far distant when his lifeless body should hang in ignominy

from the same tower."* Be this as it may, shortly after the cardinal was assassinated; and, "to show that their work was completed, the conspirators exposed the body of the cardinal over the wall, hanging by a leg and an arm." Knox, in his history, tells us that the body was afterwards left for burial in the bottom of "the Sea Tower," a place, says he, "where many of God's children had been imprisoned before." The Sea Tower is still partly standing, and in the floor is the open mouth of the dungeon where many of the martyrs were imprisoned. It is circular and bottle-shaped; is cut out of the solid rock; is about seven feet in diameter at the top, expanding to the width of about seventeen feet at the bottom; and is twenty-five feet in depth. Of course it is totally dark; and, as the castle abuts upon the sea, the prisoner below would hear no sound but the wild swing and boom of the waves of the German Ocean, as they rolled in and dashed and broke upon the rock. A thrill of horror ran through our frame as we once were let down, and stood in the horrid den, the memory of which still makes the very flesh to creep.

In the College Museum are many interesting and curious memorials of the past; but the relic of most interest is the veritable pulpit out of which John Knox thundered forth those glowing orations which finally set all Scotland ablaze. The old College itself has nearly disappeared, and its place is occupied by an elegant modern structure, the architecture of which harmonises but poorly with the *genius loci*.

The Town Church is a structure remarkable for nothing but its bulk and ugliness. It contains a really elegant monument to Archbishop Sharpe, who was cruelly murdered at Magus Moor, not far from St. Andrews, in 1679. The monument was erected by his son; it is of white and black marble, and the work was executed in Holland. There are some spirited bas-reliefs in compartments, representing the murder of the archbishop, and a long inscription setting forth his virtues, and his claims on the respect of posterity.

St. Andrews has many claims and many advantages as a residence.† It is a clean, healthy, cheerful, easily accessible, and moderately cheap residence. The favourite local amusement is golf, which attracts keen players from far places to the links of St. Andrews. But its chief advantage is educational. One of its citizens, the late Dr. Bell, left a very large sum of money to found an educational establishment which is called "the Madras College." It affords, at an almost nominal price, a first-rate education to about a thousand pupils of all classes, and of both sexes. The education given is from the ordinary elements up to modern languages, the mathematics and classics. Pupils, after being thoroughly grounded at the Madras College, may pass on to the United College, where, under an able staff of professors, a complete university education is to be had.

We have said that there are now only two colleges in St. Andrews. The one is St. Mary's or New College, and is devoted wholly to the study of divinity and cognate branches. The other is named the United College. It is formed by the junction of two colleges which formerly existed as St. Salvator's and St. Leonard's. The buildings of St. Leonard's College have all but totally disappeared. The most learned of Scots, George Buchanan, studied at St. Andrews. Perhaps

no single name in these islands had a wider circle of acquaintance than that of this singularly able and learned man. His Psalms, done into Latin, are nearly as well known to scholars as is the poetry of Horace or Virgil. As the tutor of James VI, and as the Erasmus of the Scottish Reformation, he had an influence on the events of his time which can hardly be overrated or overstated. Curiously, he attended the class of John Major, who was then a professor in St. Andrews, that same Major who was the tutor of John Knox. Buchanan was made Principal of St. Leonard's College in 1566, and in the following year he was chosen Moderator of the Scottish General Assembly; the only layman, we believe, who ever held that distinguished office. The house in which Buchanan dwelt still exists, and is still, we believe, not only habitable but inhabited. In later times another distinguished Scot held the Principalship of the United College. There is no modern name more widely known to European scientific men than that of Principal Sir David Brewster. Knighted for his eminence in science, and the value of his practical discoveries, Sir David held with honour, for many years, the Principalship of the United College, till he was called to occupy the highest literary post in Scotland; and he still, as Principal of the University of Edinburgh, rejoices in a green old age, as keen in the advancement of science as ever. It would be a long list if we were to chronicle the names of the distinguished men who have made the University of St. Andrews famous, from the days of Buchanan, who was a student as well as principal. Let it suffice to say that Dr. Thomas Chalmers was Professor of Moral Philosophy there: he too had been a student; and that his chair was afterwards occupied by the son-in-law of John Wilson, the late James Ferrier, an acute metaphysician, but a renegade from the sound inductive philosophy of Reid, Stewart, and Sir William Hamilton. The fame and dignity of the past are well sustained by the present learned Principal James D. Forbes.

It would indeed occupy long space to give the briefest list of the remarkable men who have studied in the United College there. On one occasion application for a grant was made to the Treasury, for additions to the college buildings, and it was refused. The application was afterwards repeated; but this time it was accompanied by two lists, the one of distinguished professors who had taught, and of distinguished men, in all walks of life, who had been taught, in these now ruinous and dilapidated buildings. The Minister of State, having carefully examined the document, said, "You have made out your case; there is no resisting *that*." We mention only one of our noble sons, whose name is still familiar to most ears, "plain John Campbell," son of a Fifeshire country minister, who worked his way up, filling almost every legal post, till he became Lord Chancellor of England: he was educated wholly in St. Andrews.

EXCURSIONS FROM DUNDEE.

A PLEASANT run by rail down one side of the Tay, across a short ferry, and then by rail for some half-dozen miles, and you are in the ancient city of St. Andrews; but there are other places worth visiting. If the reader is a geologist, in all likelihood he has heard of "The Den of Balruddery," which is within five or six easy miles west of Dundee. Hugh Miller, in his "Old Red Sandstone," speaking of "the *cephalaspis* of the corncstones," says: "It is not found either in England or in Scotland, in the tilestone formation, or its equivalent. It is

* Burton's History of Scotland, vol. iii., p. 460.

† For the visitor there is abundance of help, in local cicerones and guide-books; and if any reader wants to know all about St. Andrews, he will find abundant material in Lyon's "History of St. Andrews," in two stout volumes, a work of great pains and research, not to speak of Dr. Grierson's "Delineation of St. Andrews."

common, however, in the old red sandstone of Forfarshire; and it occurs at Balruddery, in the grey sandstones which form on both sides of the Tay. It is exclusively a medal of the middle Empire. In the last-mentioned locality, in a beautifully-wooded dell, known as the *Den of Balruddery*, the *cephalaspis* is found associated with an entire group of other fossils, the recent discovery of Mr. Webster, the proprietor, who, with a zeal through which geological knowledge promises to be materially extended, and at an expense of much labour, has made a collection of all the organisms of the Den yet discovered. These the writer had the pleasure of examining, in the company of Mr. Murchison and Dr. Buckland; he was afterwards present when they were examined by Agassiz: and not a single organism of the group could be identified on either occasion, by any member of the party, with those of the lower or upper formations." The late Professor Fleming "agreed with Agassiz in pronouncing the group at Balruddery essentially a new group. The characteristic fossil of this deposit, the *cephalaspis*, occurs in considerable abundance in Forfarshire, and in a much more entire state than in the cornstones of England and Wales. The rocks to which it belongs are also developed, though more sparingly, in the northern extremity of Fife, in a line parallel to the southern shores of the Tay. But, of all the localities yet known, the Den of Balruddery is that in which the peculiar organisms of the formation may be studied with the best effect. . . . But in Balruddery alone are the vegetable impressions of the one locality, and the scaly impression of the other, together with the characteristic ichthyolites of England and Forfarshire, found associated with numerous fossils besides, many of them obscure, but all of them of interest, and all of them new to geology."

From Balruddery Den, roads branch off in all directions, each of them crying out "Come this way." First, there is the old church of Bervie, a ruin, but a beautiful fragment, a silent and a shady place; and there is to be seen one of "the sculptured stones of Scotland," of the pre-historic period, which stones have utterly baffled all the research, and even all the conjectures, of all the most learned of the antiquarians of the world. A little farther on, too, in the same direction, and nearer Dundee, is the fragment of the old church of Invergowrie, supposed to have been built on one of the earliest sites of any Christian church on that side of the Tay. It stands close to the river Tay; and there two more of "the sculptured stones" are to be seen.

Supposing ourselves back at Balruddery, there is, halfway between the noble mansion of Gray House, the seat of Lord Gray, the representative of one of the oldest families in these parts. And quite close is Castle Huntly, a fine old mansion, in the parish of Longforgan, well worth a visit.

But chief among the curiosities of these parts are the old church and castle of Foulis. There is a very interesting volume, published a few years ago, in anticipation of a visit of the British Association to Dundee, which contains all that is needful to be known. The old church is locally asserted, and that stoutly too, to be of the date 1142; but there is every reason to believe that this date is too early. It certainly is of no later date than the fourteenth century. The old church is unique in many ways. It is as perfect as the day it was built. It is unique in respect of its being about the only Presbyterian church in Scotland in which there is a painting. There is a large painting of the crucifixion, on a sort of wooden screen, which divides one part of

the church from the other. Underneath the painting is an old black-letter inscription, which evidently contains the date of the building; part of it is legible; but hitherto it has baffled all the learned attempts to decipher and translate what remains of it. There is also a very old "alms-dish," with a representation of the temptation of our first parents,* and many other curious relics of a very old past. The scenery around the old church, its beautifully-kept churchyard, the magnificent views of the river Tay, the Carse of Gowrie, the coast of Fife, and a vast panorama, make this a most interesting excursion.

Back to the old point, and we are near Rossie Priory, a charming residence, the seat of Lord Kinnaird, who has done much for the amelioration of the condition of the working classes. His lordship's brother, the Hon. Arthur Kinnaird, M.P. for Perth, also bears a name distinguished in the annals of philanthropy. The ruins of the old family mansion, Kinnaird Castle, will interest the antiquary.

Where shall we go next? Strange that a few touches of the wizard wand of Shakespeare should have made one of the hundred hills which are visible from where we now stand, more interesting than all the rest. That hill is Dunsinane Hill. It is only a few miles from Rossie Priory. It is of a conical form; is upwards of 1,000 feet above the level of the sea; its top is flat and verdant, as well as its sides, from which large masses of rock protrude. Here, says that venerable authority, tradition, was the castle of Macbeth. There are traces of walls and ramparts still remaining. The area is elliptical, of about seventy yards in the longer and forty-three in the shorter diameter. Here, it is said, Macbeth was defeated and slain. At all events, there is a huge cairn near by, which goes by the name of Macbeth's Cairn; and other local names are current, all pointing in the same direction, one of which the writer well remembers applied to a large rough stone about seven feet in length, as "the Lang Man's Grave." It is said that, "some time in 1818, the late Mr. Nairne, of Dunsinane, in the hope of finding something in the site of this ancient monument of regal tyranny, employed a number of labourers to dig in the foundations. As they proceeded, part of the ground gave way and discovered a regularly-built vault, about six feet in length, four in breadth, and the same in depth. Among the ruins were found two round tables of a composition resembling bronze, upon one of which two lines were engraved." But whatever may be the history of Dunsinane Hill, there is no doubt of Glamis Castle.†

Glamis Castle is a vast pile; it is crested with multitudinous cone-topped turrets, abrupt roofs, stacks of chimneys, and railed platforms. No other castle in Scotland stands, in this day, so characteristic a type of feudal pomp and power. It appears to have grown through the various periods of Scottish baronial architecture. The dark, low, round-roofed vaults below, the prodigiously thick walls and the narrow orifices, exhibit manifest indications of the Norman period. The upper apartments appear to belong to the fifteenth or sixteenth century. In fact, like most other great works, the castle has grown great by successive additions. It is in a fine state of preservation, down to its minutest details, and in the great hall are several pictures of

* "Rambles in Forfarshire, etc." Edinburgh: A. and C. Black, 1890. This volume is sketchy, and the writer seems to draw a good deal on a very fertile imagination.

† "Glamis" is universally pronounced in those parts in one syllable, and by the country people as if spelt *glawms*—nearly rhyming with the word *shawms*.

value. There is a clothes-chest, containing some court dresses of the seventeenth century, among which is preserved the motley raiment of the family fool. The bells are yet attached to the cap and dress. There is also a very fine old chapel within the castle, the paintings on the oak panels of the walls and roof of which were the work of De Witt, the Dutchman, who also painted the kings in the picture gallery of Holyrood Palace. It was agreed, in the engagement with the artist, "that each of the fifteen large panels in the roof of the chapel should contain a full and distinct story of our blessed Saviour, conform to the cuts in a Bible here in the house. The lesser panels were to be filled with the angels as in the sky, and such other things as he, De Witt, should invent and be esteemed proper for the work." The Crucifixion was to form the altar-piece, and the door-piece the Ascension. Other stipulations follow, but the agreement between De Witt and the Earl was disputed. The artist claimed 200 marks; and the Earl writes, "I would give now, after full deliberation, for the roof of the chapel, £15 stg.; for our Saviour, the twelve Apostles, the King's father, the two martyrs St. Paul and Stephen, the altar and door-pieces, £20 stg." Our modern artists would hardly think the offer very munificent. We may add that, as a matter of course, the bed is shown on which Duncan was murdered by Macbeth.

In the autumn of 1793 Sir W. Scott visited Glamis Castle, and spent a night there. He afterwards visited the place in 1828. Between the two periods the grounds had been "improved."* Scott then describes the change. "Down went many a trophy of old magnificence: courtyard, ornamented inclosure, fosse, avenue, barbican, and every external muniment of battled wall and flanking tower, out of the midst of which the ancient dome, rising high above all its characteristic accompaniments, and seemingly girt round by its appropriate defences, which again circled each other in their different gradations, looked, as it should, the queen and mistress of the surrounding country. It was there that the huge old tower of Glamis, 'whose birth tradition notes not,' once showed its lordly head above seven circles (if I remember aright) of defensive boundaries, through which the friendly guest was admitted, and at each of which a suspicious person was unquestionably put to his answer. A disciple of Kent had the cruelty to render this splendid old mansion more *parkish*, as he was pleased to call it; to raze all those exterior defences, and bring his mean and paltry gravel walk up to the very door from which, deluded by the name, one might have imagined Lady Macbeth (with the form and features of Siddons) issuing forth to receive King Duncan." He adds that it was upwards of thirty years since he had seen Glamis, but that he had never forgotten or forgiven the atrocity. In his "Letters on Demonology and Witchcraft," Scott describes the night he spent in Glamis Castle in 1793. We slightly abbreviate: "It was the scene of the murder of a Scottish king of great antiquity—not, indeed, the gracious Duncan, with whom the name naturally associates itself, but Malcolm II. It contains also a curious monument of feudal times, a secret chamber, the entrance of which, by the law of the family, must only be known to three persons at once—namely, the Earl of Strathmore, his heir-apparent, and any third person they may take into their confidence. As the late earl seldom resided at Glamis, it was, when I was there, but half-furnished, and that with movables of great

antiquity, which, with the pieces of chivalric armour hanging on the walls, greatly contributed to the general effect of the whole. I was conducted to my apartment in a distant part of the building. I must own that when I heard door after door shut, after my conductor had retired, I began to consider myself as too far from the living and somewhat too near the dead. We had passed through what is called the King's Room, a vaulted apartment, garnished with stags' antlers and other trophies of the chase, and said by tradition to be the spot of Malcolm's murder, and I had an idea of the vicinity of the Castle Chapel. In spite of the truth of history, the whole night scene in Macbeth's Castle rushed at once upon me, and struck my mind more forcibly than even when I had seen its terrors represented by John Kemble and his inimitable sister." We only add a sentence from "The Baronial and Ecclesiastical Antiquities of Scotland," from which we have adopted a few sentences in the previous part of this article: "But not the least source of enjoyment to the visitor of Glamis will be, if the day be fine, to look round him from the railed platform on the top of the tower, to the wide valley of Strathmore, full of luxuriant woods and rich cultivated domains."

Newtyle is within a few miles, by rail, of Glamis; and a few minutes' walk to the west of the village stands a fine old castellated building called Bannatyne House. It is in good repair, and in a capacious circular turret to the north the chamber is shown where the famous Bannatyne manuscripts are said to have been penned towards the close of the sixteenth century. This ms. and what came out of it, gave rise to the celebrated Bannatyne Club. Not far from Newtyle, again, is the parish of Meigle, which is the richest and most famous locality for the sculptured stones of Scotland; and then, a little farther on, but still within easily accessible distance, is the "Bonnie House o' Airlie," famed in Scottish ballad.

In the absence of the Earl of Airlie, who was a partisan of Charles I, he had left his wife and son, Lord Ogilvy, to defend his stronghold. After various attempts by sundry leading men of the covenanting party had failed, "the great Argyle" raised a host, it is said, of 5,000 men, and swept down on the castle, "by the back o' Dunkeld." The result is detailed in the ballad, in the traditional way. The son, failing to persuade his mother to flee, escaped himself, afterwards followed by his mother, when she saw that further resistance was hopeless. Argyle took the place, pillaged, and utterly destroyed it. The modern mansion occupies the site of the old building, part of which still remains in a strong old gateway, and fragments of an ivy-covered tower, all that this Great Argyle left of the "Bonnie House o' Airlie."

Glen Isla, famed for its beauty; Cortachy Castle, the present seat of the Earls of Airlie; the Castle of Inverquhairny, and many other noted places, are within easy distance. There are riddles also in the sculptured stones, rude caves, and other pre-historic antiquities abounding on either side of the Firth of Tay. Recently a discovery was made on the estate of Laws, to the east of Dundee, which at first promised to yield some light, but the partial glimmer has settled down into the dark chaos again, and all is silent and mystery as before. To gather facts, and to avoid hasty conclusions, is the part of true science in this, as in all other departments of inquiry.

Arbroath and Montrose, both rich in antiquarian and historical interest, are also within easy reach of Dundee; but our space is for the present expended.

* "Essay on Landscape Gardening." A full account of the visit will be found in Lockhart's Life of Scott, vol. I.

Varieties.

PRINCE ALBERT'S LOVE OF THE COUNTRY.—This the Prince constantly expressed. On arriving at Osborne and Balmoral, and on leaving London: "How sweet it smells!" "How delicious the air is! one begins to breathe again!" And how he delighted in the song of the birds, and especially of nightingales, listening for them in the happy, peaceful walks he used to take with the Queen in the woods at Osborne, and whistling to them in their own peculiar long note, which they invariably answer. The Queen cannot hear this note now without fancying she hears him, and without the deepest, saddest emotion. At night he would stand on the balcony at Osborne, in May, listening to the nightingales.—*Note by the Queen, in Vol. I. of "The Early Days of the Prince Consort."*

AGRICULTURAL LABOURERS.—Even those who are most decided in their opinions as to the productiveness of England's industry must feel that the condition of those who are employed in agriculture is most unsatisfactory; for there are few classes of workmen who, in so many respects, are so thoroughly wretched as the English agricultural labourer. They are so miserably poor that, if they were converted into serfs to-morrow, it would be for the interest of their employers to feed them far better than they are fed at the present time. A moment's consideration will show that such wages (10s. per week) are barely sufficient to supply the prime necessities of life. Meat cannot be tasted more than once a week, and those who have to exist on this scanty fare are more exposed than any others to the inclemency of our trying climate. To them a life of toiling and incessant industry can offer no other prospect but to drag out a miserable old age; for then they will either be paupers in the workhouse (poorhouse) or they must come as suppliant mendicants for parish relief. The distribution of this wealth is so unsatisfactory that those whose labour is instrumental in producing it are miserably poor, and their life in every respect most unenviable. They have, in fact, to work with the regularity of machines, without hope that their condition will be improved.—*Professor Fawcett, M.P.*

HULL ANTIQUITIES.—The oldest house in Hull is the King's Head, New High Street. In the same street is Wilberforce House, the family house where William Wilberforce was born and reared. It is now let off as offices. The most ancient churches in Hull are the Parish Church of Holy Trinity, and St. Mary's, Lowgate. The Royal Archaeological Society held its annual conference this year at Hull, and excursions were made to Beverley Minster and St. Mary's Church, Thornton Abbey, Priory Church, Bridlington, and other notable antiquities of that region.

SARDINES.—Various fishes of the herring family are cured and pass as sardines, especially sprats and young pilchards, and not long ago, upon examining the contents of a tin, we found that the fish contained in it were true anchovies. According to Mr. Couch, "the sardine appears to be the only fish of this family, except the pilchard, that has the dorsal fin at the centre of gravity. Cuvier states of the sardine that it is so much like the pilchard that the only perceptible difference is its inferior size;" but Mr. Couch mentions that "In the year 1843, six hogheads of supposed pilchards were taken" (on the Cornish coast, we presume), "the fish about six inches long, and multitudes were so small as to pass through the meshes of the drift-nets. They were marked with spots along the sides, which grow faint and disappear as the colours fade. Compared with a pilchard of the same size, I found the marking of the head different," adds Mr. Couch, "and guttered on the lower margin, where the pilchard is plain. These small fish abounded at all distances from land, and, in consequence, all the fish in fine condition that were found a week or two previously had disappeared." It would appear that the able Cornish ichthyologist considered the small fish in question to be sardines.—*Land and Water.*

THE HURRICANE AT THE BAHAMAS IN SEPTEMBER 1866.—There are two grand epochs of a similar visitation at these islands on record. The first is the memorable disaster known in the history of the West Indies as the Great October Hurricane of 1780; the other, remembered by the oldest inhabitants as the Great August Hurricane of 1813. Most of the latter say that the hurricane of Sunday, September 30, 1866, exceeded in violence the gale of 24th August, 1813. It is certain that more lives and property were then lost. On Saturday, at Grand Turk Island, the wind blew moderately from the N.N.E. There were apprehensions of a coming storm in the minds of a

few; but as there had been nothing like a hurricane since 1837, it was difficult, in the majority, to recognise anything of approaching disaster. On Saturday, at midnight, or on Sunday morning, the wind gradually increased; so that at sunrise there were no longer any doubts, especially from the indications of the barometer, of a hurricane at hand. Throughout the day it blew with a terrific force, and until after mid-day, from about E.N.E., when it abated for half an hour, which gave a sufficient interval for the most daring to venture out to make a few general inquiries as to what had happened. The wind then shifted to the south-east, blowing with violence till about five or six o'clock, from which time it gradually abated. About twenty lives were lost from direct injuries or from exposure. Eight hundred houses were totally destroyed, leaving more than 3,000 persons shelterless, and most of them in poverty. Government House and the public offices, the public schools, armoury, gaol, poor's house, quarantine hospital, and almost all the places of public worship, were more or less injured. Upwards of 1,200,000 bushels of salt, a great article of merchandise in this place, were blown away. Several vessels were also lost and their crews drowned. It was a cyclone storm on the vastest scale. At Salt Cay and the Caicos, the destruction was as great in proportion as at Turk Island.

ANECDOTES OF CLARKSON STANFIELD, R.A.—Stanfield executed a number of small drawings, whilst yet a sailor boy on board the ship. I have seen several of them. They were slight things, but true to the sea and nautical subjects they endeavoured to represent. Another anecdote is only curious from an odd coincidence. We were going together in a steamboat, down the Thames, when a picturesque group of vessels and barges struck me as very pretty, and I pointed it out to my excellent companion. He acknowledged the beauty, but said, "Oh, if you saw the delightful forms and combinations of the feluccas of the Adriatic, you would then see something worthy of picture! They never visit England!" We rounded an angle of the river, and within a mile I witnessed the only Italian felucca I ever saw on the Thames. I believe such an occurrence is almost unique. W. J.

LAST DAYS OF SIR R. H. INGLIS, BART.—As long as his state of health allowed, he might be seen in his usual place in his parish church of Bloomsbury, which then, and for many years, had enjoyed the affectionate ministrations of Mr. Villiers. His satisfaction was observable in his countenance; and the look of delighted interest with which he watched some young persons go up for the first time to the Sacrament, greatly impressed the beholders. His social habits remained. He was not able to enjoy general society; but the company of a few friends refreshed him, and they were received with increased cordiality and with warmer signs of affection. He was going his journey a little before them, and he drew to them more closely as they were about to part for a time. His look, his words, were full of tenderness, thankfulness for God's mercies, peaceful resignation, and an untroubled joy. Such a life it seemed only natural should pass away gently. The day which had opened brightly, and had run its course without a cloud, was likely to set in a serene evening. His hopes and his retrospect were alike clear. The decline of strength was gradual and the decay painless. . . . In keeping with the humility of his character, he begged that no monument but a plain slab of granite should mark the place of his burial, inscribed only with his name, birth, marriage, and death; and the words of his last will record impressively his simple faith,—"I commend my soul to the mercy of God, through the single merits of Jesus Christ, having no hope, and desiring to have no trust, except in Him."—*Wilberforce and his Times.*

NATIONAL QUESTIONS.—It is often amusing to look back on the arguments employed on grand national questions, as on the colonisation of Australia. A great politician, one Sewell, declared that "sending convicts to Botany Bay is a violation of the East India Company's Charter, which grants an exclusive trade to the Cape of Good Hope and Straits of Magellan, i.e., all countries to the east of Africa and west of America." Dalrymple, as a writer of eminence, foretold that, if a colony was settled in New Holland, it must become very soon independent, and, "I will add, dangerous to England. They would not become agriculturists, but pirates on the coast of China, and the Chinese would demand indemnities from us." Tristan da Cunha is proposed as an alternative to avert these awful consequences. So much for human insight into futurity!